

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004032**Date Inspected:** 03-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China**CWI Name:** Chen Xi**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

Tower Shop Bay 3 Deck Panel repairs

The QA Inspector randomly observed ZPMC personnel performing grinding of repairs for the Orthotropic Box Girder (OBG) deck panel Partial Joint Penetration (PJP) welds. During initial observations it was noted that thirteen (13 ea) deck panels are inside the shop. This QA inspector observed ZPMC performing grinding repair's on the following deck panels; DP563-001, DP562-001-B, DP596-001 and DP568-001 this QA inspector noted that ZPMC had excavated several areas for welding on DP557-001 and DP572-001-B these were in process for the remainder of this shift. Also noted that ZPMC had six (6) Deck Panel plates located in bay 3 performing CJP weld splicing using the SAW process on DP540-001-300 and DP550-001-300 under WPS-B-T-2231-B-L2c-S-2 by welder Yang Yongzeng ID#-059418. This QA inspector noted that the 5 remaining panels did have the root passes completed at the time of this observation Certified Welding Inspector for ZPMC Sun Wei was present at this location for the monitoring of the deck repairs and inspection. Also noted in bay 3 to monitor deck panel repairs were ABF personnel Kevin Chen, Wang Zhong Yuan and Ding Bao Hua.

89m Mock-up Submittal SUB101R2

This QA inspector was informed by SMR Josh Ishibashi that ZPMC had completed the welding of lug plate to diaphragm and would be performing the MT of weld MUB-MA21-A/J-26 for the 24 hour hold point inspection as outlined in the approved procedure. Upon completion of the MT ZPMC had discovered a 250mm rejectable linear indication within the weldment. No further work was observed at this location by this QA inspector for this date on the 89m mock-up. Below are digital photos of the indication as outlined above.

Bay 1 OBG sub-assembly

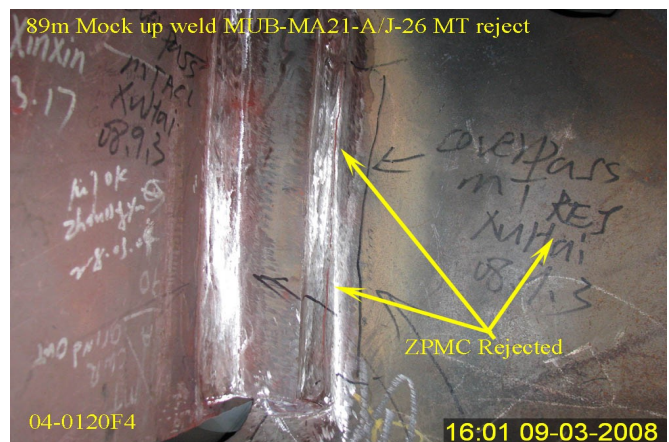
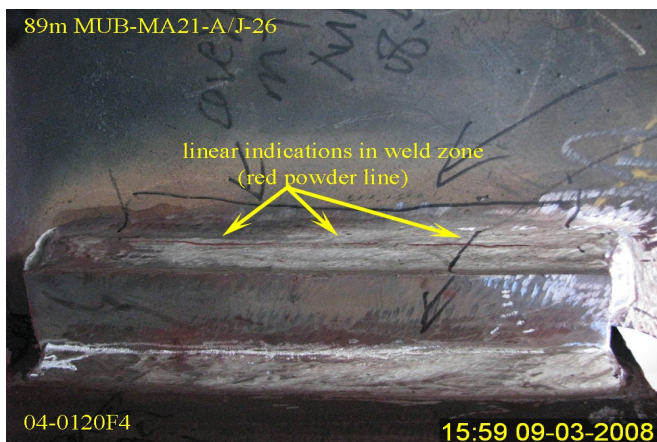
This QA inspector during his periodic observation at ZPMC observed the fabrication of deck panels in bay 1. The fabrication process was noted to be in several stages that included; closed rib milling, PJP weld joint beveling,

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drilling thru holes, press forming, closed rib splice welding, closed rib diaphragm fit-up and FCAW welding of splices, closed rib to deck plate fit-up/tack welding and the PJP welding of closed ribs to deck plates using GMAW and SAW processes. ZPMC had placed closed rib deck panels at both gantries 1 and 2 that had been tack welded and was ready for the GMAW and SAW welding process. At gantry 1 DP164-001 tacked and ready for welding also noted was the PMT at this location for tonight welding, DP440-001 welding process had been completed. Gantry 2 DP386-001 had been tack welded.

ZPMC was in Bay 1 OBG sub-assembly performing UT testing of CJP weldments and splices, observed were 2 UT technicians and 1 helper. ZPMC performed testing on diaphragm plates for closed ribs on DP550-001 and on CJP splices for DP595-001-300, DP605-001-300, DP550-001-300 and DP545-001-300. The above panels had acceptable results as written on the components and conveyed to this QA inspector by the technicians. Noted was DP550-001-300 which had a rejectable indication approximately 25mm from the plate edge ZPMC brought the shop drawings out to determine if the plate would be trimmed and the indication removed in the trimming process. It was determined that the plate width per drawings is to be 3000 mm and the plate's width at the time of testing was 3100 mm so the plate shall be trimmed and the indication removed. At this point ZPMC accepted the weldment.



Summary of Conversations:

As stated above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or

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remedial efforts please contact Ady Velasco , 1-381-694-2685, who represents the Office of Structural Materials for your project.

Inspected By:	Riley, Ken	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer
